



PATENT
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Colleen Coyne
Printed name of person mailing correspondence

Colleen Coyne
Signature of person mailing correspondence

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Pierre Colas et al.	Art Unit:	1653
Serial No.:	10/066,965	Examiner:	Robinson, Hope A.
Filed:	November 13, 2001	Customer No.:	21559
Title:	TARGETED MODIFICATION OF INTRACELLULAR COMPOUNDS		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF PIERRE COLAS

PIERRE COLAS hereby declares:

1. That I have, together with my coworkers, successfully used the yeast two-hybrid system (interaction trap) disclosed in the application US 10/066,965 to select peptide aptamers against a wide range of target proteins. In addition to Cdk2 and Bax target proteins disclosed in the application US 10/066,965, peptide aptamers were also selected against the GTPase activating protein RasGAP, the transcriptional repressor Fur, the adaptor protein Grb2, the protein kinases Raf, ERK1, and AKT1, and the chaperone

Hsp70.

2. That, in carrying out the above-mentioned two-hybrid selections, I have successfully used two additional libraries of peptide aptamers, bearing 8 and 13 amino acids respectively in their variable region. I have also used the library disclosed in the application US 10/066,965, in which most peptide aptamers bear 20 amino acids in their variable region and in which some peptide aptamers bearing longer variable regions are present. I have selected against some of the targets mentioned under point 1 peptide aptamers bearing 20 amino acids and up to 50 amino acids in their variable region.

3. That I have compared the intensities of the yeast two-hybrid phenotypes observed with these aptamers with that of target-aptamer interactions that I had experimentally measured using the surface plasmon resonance technique. As judged from the interaction phenotypes observed with the lacZ reporter gene or with the more recently developed luciferase reporter genes, I conclude that for some of the above-mentioned target proteins, I have been able to select peptide aptamers whose apparent binding affinity lies in the single digit nanomolar range.

4. That I have transferred the variable regions of some of the above-mentioned peptide aptamers from *E.coli* thioredoxin to its human ortholog. In many cases, I have observed that the peptide aptamers bearing the same variable regions but embedded in the human thioredoxin retained their ability to interact with their cognate target protein, sometimes with a similar binding affinity that their *E. coli* counterparts. I therefore

confirm that human thioredoxin, an *E.coli* thioredoxin-like protein, is also a suitable platform for designing peptide aptamers according to the technology disclosed in the application US 10/066,965.

5. That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: _____

PIERRE COLAS
8 rue de l'Archinière
F-69370 SAINT DIDIER AU MONT D'OR
FRANCE



COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled TARGETED MODIFICATION OF INTRACELLULAR COMPOUNDS, the specification of which was filed on November 13, 2001 as Application Serial No. 10/066,965.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with 37 C.F.R. § 1.56.

FOREIGN PRIORITY RIGHTS: I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or (f), or § 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or § 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below, and have also identified below any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Country	Serial Number	Filing Date	Priority Claimed?
Europe	00403156.3	November 13, 2000	Yes

PROVISIONAL PRIORITY RIGHTS: I hereby claim priority benefits under 35 U.S.C. § 119(e) of any United States provisional patent application(s) listed below filed by an inventor or inventors on the same subject matter as the present application and having a filing date before that of the application(s) of which priority is claimed:

Serial Number	Filing Date	Status
		Pending

NON-PROVISIONAL PRIORITY RIGHTS: I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose all information I know to be material to patentability as defined in 37 C.F.R. § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

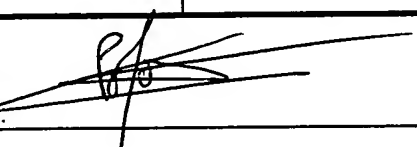
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I hereby appoint the attorneys and/or agents associated with customer number **21559** to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Address all correspondence relating to this application to the address associated with customer number **21559**.

Address all telephone calls to: Karen L. Elbing, Ph.D. at 617-428-0200.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name (First, Middle, Last)	Residence Address (City, State, Country)	Post Office Address (Street, City, State, Country)	Citizenship
Pierre Colas	Saint Didier Mont D'or France	8 rue de l' Archiniere F-69370 Saint Didier Mont D'or, France	France
Signature: 			Date: <i>Dec-30th, 2004</i>

Full Name (First, Middle, Last)	Residence Address (City, State, Country)	Post Office Address (Street, City, State, Country)	Citizenship
Roger Brent	Berkeley, CA	1106 Miller Avenue Berkeley, CA 94708	United States
Signature:			Date:

Full Name (First, Middle, Last)	Residence Address (City, State, Country)	Post Office Address (Street, City, State, Country)	Citizenship
Barak A. Cohen	St. Louis, MO	5096 Waterman Avenue Apt. A St. Louis, MO 63108	United States
Signature:			Date:

Full Name (First, Middle, Last)	Residence Address (City, State, Country)	Post Office Address (Street, City, State, Country)	Citizenship
Olivier Moncorge	Lyon, France	19 avenue Jean Jaurès 69007 Lyon, France	France
Signature:			Date:



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Pierre Colas	Saint Didier Mont D'or France	8 rue de l' Archiniere F-69370 Saint Didier Mont D'or, France	France
Signature:			Date:

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Roger Brent	Berkeley, CA	1106 Miller Avenue Berkeley, CA 94708	United States
Signature: 			Date: 2/7 A/B/10

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Olivier Moncorge	Lyon, France	19 avenue Jean Jaurès 69007 Lyon, France	France
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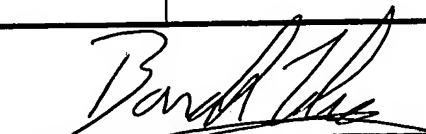
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Signature: 			10/06/2004 Date:

6947 Amherst Ave.
University City, MO 63130
BAC

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Olivier Moncorge	Lyon, France	19 avenue Jean Jaurès 69007 Lyon, France	France
Signature: 			December 30 th , 2004 Date: